The field of graduate recruitment: leading financial and consultancy firms and elite class formation

Abstract

In a crowded graduate labour market, the symbolic value of transitioning to a high status multinational employer likely represents an important marker of distinction. For the first time, a unique Destinations of Leavers in Higher Education (DLHE) data-set is used here to model entry to elite multinational employers in finance, accountancy and consultancy sectors among graduates of different social origins, universities, degree subjects and with different degree classifications. From a sample of 11,755 graduates working across these three sectors, we examine what predicts entry to 33 leading firms and then examine pay hierarchies amongst the 3,260 graduates working for these companies using random-effects models. At first glance, significantly, we find that elite recruits come from a much broader range of universities than might be imagined. However, a closer look at the highest paid graduates within these firms reveals more familiar patterns of social and institutional stratification. We argue that these patterns likely reflect the nature of work undertaken by graduates in these elite firms, with institutional and social origins of graduates differing according to the particular track taken in what are likely to be highly differentiated graduate recruitment schemes.

Keywords: elites, finance and consultancy, graduate recruitment, educational stratification, City of London

Introduction: higher education, prestige employers and elite class formation

Higher education expansion in the UK has not created an engine for social mobility as it was at least partly intended. Instead, there is a strong case that a mass system has created so-called 'congestion' in the graduate labour market (Brown, 2013: 683-686), intensifying those mechanisms by which advantage is accrued and maintained (Boliver, 2011). As more graduates accrue the same level of educational credentials, especially when they are of similar symbolic value, the crowding of the labour market causes employers to adopt competency-based means of identifying 'talent' in terms of the 'soft' currencies of employability. These include the means by which advantaged groups are able to present themselves as more convincing and worthy of attention and merit, through their communicative styles, dispositions and modes of conduct, character and manner (Bourdieu, 1984). What is recognised by elite recruiters (and indeed elite universities) as 'drive', 'confidence' and 'passion' is likely to be the kind of 'drive', 'confidence' and 'passion' held by dominant groups in society. In the context of this congested graduate labour market, we examine here the contemporary associations between social background, educational credentials and elite destinations, using the case of entry to top finance and consultancy firms. Our analyses provides a rare quantitative glimpse into the social and educational origins of graduates into elite firms in the UK, and uses the overlapping fields of financial, consultancy and accountancy firms (Ashley and Empson, 2016: 217-218) to explore its socially and institutionally stratified recruitment patterns, in terms of both overall entry, as well as the internal sorting of graduates within the firms themselves.

In the US context, recruitment for major investment banking, management consultancy and technology firms is strongly selective in terms of the universities they recruit from. In Rivera's (2010; 2015) analysis of graduate recruitment practices for elite jobs, corporate recruiters focussed on a 'super-elite' of just four schools, Harvard, Princeton, Yale and Stanford with other elite universities dismissed or relegated in recruitment processes (Rivera, 2010: 78). Notably, Rivera (2010: 86-87) argues that there has been a shift in credential values required to enter an elite firm, from simply having a degree or one at an Ivy League institution, to having a degree from *particular* elite schools. Bourdieu (1996: 325-329) described similar shifts within the French economic field of power, with the rising role of business schools like HEC and Sciences Po meaning that the number of CEO's from the traditional elite engineering and science schools declined between 1952 and 1972. In the UK, Morley (2007; Morley and Aynsley, 2007) has explored how graduate recruiters focus on a particular sub-set of prestigious universities, largely those in the 'Russell Group', a self-selecting association of research intensive universities with high academic entry requirements. Wakeling and Savage's (2015) analysis of recruitment into the elite also suggested a distinctive hierarchy *within* the selective 'Russell Group' universities and the dominance of the 'Golden Triangle' of Oxford, Cambridge and certain London universities. In our analysis, we investigate further the specific influence of institution attended, as well as how this relates to other important social and educational factors, including subject studied, degree classification and so forth. The impact of institution attended has long been an under-researched area of study, and the emergence of new forms of institutional differentiation alongside historic hierarchies (such as the 'Golden Triangle') implies a need to examine more closely the significance of institutional origins, especially across different sectors of the graduate labour market.

The City of London, where most of the elite financial firms analysed here are based, was historically and still largely remains a male, middle-class dominated arena (McDowell, 2010;

McDowell, 1997). Research in the areas of management studies (Kumra, 2015) and critical accounting (Haynes, 2017) both suggest that, despite significant progress over time, the higher echelons of accounting and consultancy firms remain male dominated. In social class terms, as Moore *et al.*(2016: 76-78) describe in relation to investment banking, extensive pre-screening by secondary school results and targeted university recruitment means that many working-class graduates are effectively excluded before the process of interviewing by elite investment banks even starts. Moreover, there is also internal differentiation of the importance of class and private school attendance *within* the different roles at investment banks. Client-facing positions are still seen as better suited to middle and upper-class graduates from elite private schools whilst the trading floor is more accommodating to working-class students and/or those with particular technical or mathematical ability (Moore *et al.* 2016: 84-87). This fits Friedman and Laurison's (2017) analysis of the 'class ceiling' within particular professions in the UK, with upwardly mobile working-class professionals in finance earning considerably less than their middle-class colleagues. Their analysis also confirms a regional element to this with the pay gap being considerably larger for those working in finance in Central London than elsewhere (Friedman and Laurison, 2017).

Historically, sociological analyses of the British economic elite have tended to examine the social and educational backgrounds and trajectories post hoc, analysing relatively small samples of individuals once they have reached positions of power (Stanworth and Giddens, 1974; Whitley, 1974; Jeremy, 1984; Scott, 2003). Most recently the work of the Social Mobility Commission (SMCPC, 2014) and the Sutton Trust (2012) have replicated this approach, with the Sutton Trust (2014: 5) notably finding that staff in senior positions were much more likely to be privately educated and have attended Oxford or Cambridge (Oxbridge) compared to the general City of London intake. For earlier generations the mode of recruitment itself was not through formalised graduate programmes which now predominate. Alongside a broader range of entry routes, family connections continued to play a role in allowing those from elite backgrounds to enter finance at least into the 1960s (Thompson, 1997). However, even then family influence over first jobs for future economic elites had declined relative to chairmen born in the 19th century (Stanworth and Giddens, 1974: 91). In line with larger studies of the elite (Reeves et al., 2017) that have shown the declining influence of attending an elite 'Clarendon' school or Oxbridge, Davis (2017) has recently suggested that education and particularly professional business education such as an MBA is increasingly important compared to attending older elite universities. Our study is in the unique position of being able to look comprehensively at the role of education and other factors in recruitment into the most prestigious firms of British finance and consultancy *as it happens*.

Whereas most elite studies analyse financial elites once they have formed, in our paper we seek to explore financial elites that are *in formation* through examining the differentiation and hierarchies that are present in the transition of graduates into employment. Use of administrative data recorded in surveys of graduates, the Destination of Leavers of Higher Education survey (DLHE), gives us data with an unparalleled level of detail on the immediate career destinations of graduates six months after leaving university. Whilst for some graduates this will not form their ultimate career destination, with the prevalence of graduate schemes in the major corporate firms under exploration here, these data provide an important measure of how elite formation occurs in the immediate transition from education into work in the economic field.

Lyle (2012: 135-137) shows how successful applicants to one of the 'Big Four' accountancy firms are clearly conscious of the prestige associated with employment in these firms, a perception which is carefully encouraged by the firm itself in its promotional material aimed at graduates. What counts as a prestigious job for graduates in elite universities is carefully constructed in an attempt to recruit a talented workforce, increasingly on a global scale (Brown et al., 2010). What is considered as 'talent' is itself a manifestation of classed, gendered and racialized forms of conduct, character and dispositions. The process of constructing what sectors and particular firms carry prestige for graduates is encouraged by university career departments and the firms themselves through recruitment activities and internships offered to undergraduates at elite institutions. However, the students themselves also actively construct these jobs as prestigious though the culture of competition with other students, the desire for security and to achieve something perceived as having parity with the elite academic institution they are part of (Binder et al., 2016).

We consider how graduate recruitment works within the economic 'field' in a Bourdieusian sense. Field, for Bourdieu is a multi-dimensional social space within which actors' (both individuals and institutions) positions are determined by their stock of cultural, economic, social and, especially, symbolic capital (Bourdieu and Wacquant, 1992). The economic field thus contains the major economic institutions (companies, regulators, the treasury) that structure the UK economy. The three sectors of management consultancy, banking and accountancy are central to the functioning of the economic field of power, the elite sub-field of economic development in which key decisions are made which determine the shape of the economy more broadly. This economic field of power is itself part of the broader 'field of power', which Bourdieu defined as the arena within which elite actors from the economic and cultural fields come together to struggle for dominance (Wacquant, 1996: xi; Bourdieu, 1996: 264-265). Graduates entering employment in these financial sectors are thus positioning themselves within an elite sub-field of the economy. In order to enter this sub-field, particular forms of capital such as educational qualifications or affiliations or other symbolic and cultural markers of prestige are valuable. Working for elite firms early in one's career carries powerful symbolic and cultural capital within finance (Hall, 2013: 229).

This symbolic power is likely to vary even within these firms, with different graduate entry 'tracks' carrying different degrees of prestige and economic benefit. We know for example that private equity and investment banking are more socially selective than other areas of finance (Sutton Trust, 2014: 8-9). Stratifying and creating hierarchies between graduates is central to the recruitment of graduates into these large corporate companies. Each of the employers tend to have several graduate recruitment tracks; for example, the consultancy firm KPMG (2018) has separate tracks for audit, tax, pensions and legal, business services, technology, consulting and deals. Reliable salary data within these different streams operated by the larger firms is difficult to access. For distinctions within these major firms the only publicly available data is through crowd-sourced sites such as glassdoor.com where users anonymously provide salary data. The data is of variable quality but it does suggest variation amongst graduates starting salaries. KPMG Graduate Trainees reported a median salary of £30,397 (n=52, £21,000-£38,000), for Graduate Technology Consultants this was £30,997 (n=10, £28,000-£35,000) and Graduate Management Consultants earned £32,869 (n=9, £32,000-£38,000) (Glassdoor, 2018). The salary ranges given here suggest pay hierarchies by job specialism amongst recent graduates within these companies. Exploring the social and educational stratification of entry to these firms and amongst those who are successful in entering graduate jobs looking at pay differentials between different graduates form the basis for the modelling work below.

Data and methods

A specially requested data-set from the Destinations of Leavers in Higher Education (DLHE) survey is used here, drawing on the entire 2013/14 cohort of leavers (undergraduate and postgraduate) who were surveyed 6 months after graduation. Whilst DLHE data taken 6 months following graduation is limited as a measure of ultimate career trajectory, it is ideal for our purposes because the majority of those entering graduate recruitment schemes are likely to come directly from university. Our data-set contains a rich level of detail at the individual level, including demographic information (gender, age, ethnicity, socio-economic classification, parental education, home postcode), educational trajectories (previous school attended, school attainment, university and course choices, degree classification), and graduate destinations (occupation, employer name, salary). The data-set is unique in having the actual names of employers, and we know of no other analyses that has used DLHE data in this way.

In terms of social class, we are restricted by the variables and proxy measures contained within our data-set, which do not neatly map onto more nuanced understandings of social class discussed earlier, and ongoing debates around class formation. However, socio-economic status is the only variable available to us here, and so we include this but also include education sector (private /state) as a further class-related marker. Unfortunately, the data-set only contains the last degree awarded, and so we are unable to explore the importance of multiple degree ownership. That said, the data-set does include all degree types, including postgraduate, which provides some over-arching sense of how further study impacts on access to elite firms and earnings within them.

To produce a sub-sample of graduates working in finance, consulting and accountancy we used the 2007 Standard Industrial Classification (Office for National Statistics, 2009) combined with the 2010 Standard Occupational Code (Office for National Statistics, 2010). Both of these variables refer to the classification of graduates' jobs 6 months after finishing university. We first produced a subset of graduates working in the following industrial sectors: financial service activities and insurance; accounting, bookkeeping and auditing activities; tax consultancy; activities of head offices; management consultancy activities. To remove those who work in large banks, accountancy firms or consultancy headquarters but who are not employed in 'professional' forms of graduate employment, we then subset to only retain graduates whose jobs fall under the following three occupational groups: financial managers, directors and bankers; business, research and administrative professionals; business, finance and related associate professionals.

In order to distinguish between elite employers within the finance, accountancy and banking sectors we referred to two surveys of employer prestige, Vault (2018) rankings for 2014 and The Times 100 (High Fliers Research, 2014) list of top UK graduate employers. Relying on external market research surveys clearly comes with caveats particularly with the Vault rankings which provide little data regarding the sample size for the survey of professionals that they survey. Vault is a US-based ranking and careers website, it carries out annual surveys of professionals in each of the three sectors we examine here. These surveys include a question in which participants are asked to rank firms in their field, excluding their own, by prestige using a scale of one to ten. Using these rankings, we have taken the top ten employers in each sector from the European Vault rankings by prestige only. For

accountancy there is no European ranking so we have referred to the American rankings which includes many firms that are global employers with London offices.

To gain a more specific UK perspective, we also referred to The Times 100 survey of graduates. This is an annual survey of around 18,000 graduates which asks final year students a range of questions with the aim of exploring "which employer offers the best opportunities for graduates" (High Fliers Research, 2014: 7). We refer to the 2014 survey and associated report to refer to the expectations of the same group of students as those surveyed by HESA in the DLHE survey who left university after the 2013-14 academic year. From this list we have taken the companies from the three sectors described below. The full list of employers from both Vault and the Times 100 is included in appendix 1, they include companies such as Goldman Sachs, Deutsche Bank, Mckinsey, and PWC.

This data cleaning leaves us with two sub-sets, the first group of all graduates working in finance, management consultancy or accountancy (n=11755) and a second group of all those working in the elite subset of companies with earnings data (n=3260). A number of graduates (1085) who work for the firms were excluded as they had missing salary data. Prior to producing this subset, we verified that this missingness was randomly distributed right across the sample, running cross-tabs on all the background variables controlled for here. There was very little variation between those with missing salary data and those without across the full range of social, educational and geographical characteristics that we refer to here.

The attached table 1 provides bivariate descriptive statistics, showing relationships between various background characteristics and a) the overall cohort of 2013/14 graduates, b) those taking employment in our 3 sectors of interest (accountancy, finance and consulting), and c) those working in elite firms within these sectors. As might be expected, those working in the sectors overall, and those recruited to the elite firms within the sectors, are not socially and ethnically representative of all those who graduated in 2013/14. Whilst 6% of this graduate cohort were privately educated, our sectors of interest have a higher proportion of privately educated graduates (18%), which is slightly higher in the elite firms (19%). The same is true for social class, with more advantaged graduates in these sectors and elite firms than is the case for graduates overall. Our sub-sample also varies in its ethnic make-up when compared to the graduate population at large. In terms of specific groups, there are a greater proportion of British / British Asian - Pakistani, British / British Asian – Indian, and Chinese graduates working in these sectors and elite employers. A smaller proportion of White graduates make-up our sub-samples when compared with the overall graduate population. Black ethnic groups are slightly under-represented in our sub-sample when you consider the overall number who graduated, whilst British / British Asian Bangladeshi and Mixed graduates are roughly represented.

In order to simultaneously take into account both individual and group level variations in modelling entry to the top firms, we use random-effects models, otherwise known as multilevel models. Two-level models are specified, with graduates (level 1) nested into universities (level 2) in order to properly account for university attended. This enables us to identify what proportion of the variance is attributed to differences between individuals, and how much is a product of the university they attend. There are two outcomes of interest here; first whether graduates within this sector work for one of the elite employers, and second, of those who enter one of these elite employers, what predicts whether they earn the highest salaries. We fitted models for both outcomes controlling for all known individual factors (level 1) – in doing so, the two sets of models were built up gradually, first including only

background variables (sex, ethnicity, social class) then education (degree classification and type, subject, university attended) and finally the geography of where graduates are from and where they work. The coefficients referred to below directly in the analysis are all significant to at least 0.05, and full tables are included in the attached tables 2 and 3.

Random-effects models

Our analysis seeks to explore how and whether inequalities in employment within financial elites are present from the beginning of recruitment of graduates into leading multinational companies. In what follows, we compare two sets of models (see attached tables 2 and 3) which allow us to explore entry to these elite firms (models 1-3, table 2) and stratification of earnings amongst graduates *within* them (models 4-6, table 3). We thus examine how graduates entering one of these prestige firms differ from other graduates working in the 3 sectors, as well as analysing what lies behind salary differences between higher and lower earners at these elite companies. Our analysis disaggregates distinctions in recruitment within the economic field between elite firms and other financial sector employers, as well as distinctions within the sub-field of dominant firms.

In terms of overall entry to elite firms, models one to three show that the dominance of most non-White ethnic groups holds strong even after simultaneously controlling for social class, university attended, subject of study and so forth. Compared to the White ethnic group, Chinese graduates were 70% more likely to be recruited by an elite firm, Black/Black British - Caribbean 72% more likely, Black/Black British - African 64% more likely, Asian/Asian British – Pakistani 63% more likely, and Asian/Asian British – Indian 52% more likely. It is interesting to note that whilst the bivariate relationships showed all Black groups less represented in the sectors overall, these ethnic groups do better when they do enter the sectors in getting access to the top firms – whilst the reverse is true for Asian/Asian British – Indian graduates.

However, significantly, these ethnic patterns in overall entry are markedly reversed when we model those who enter elite firms with the highest starting salaries. Compared to White graduates, all of the minority ethnic groups included in our analysis are less likely to earning the most upon entry to a top firm. This is especially marked for the groups: Asian / British Asian - Bangladeshi (over 10% less likely), Black / Black British – Caribbean (nearly 14% less likely), and Chinese (over 7% less likely). It is striking that regardless of all the factors controlled for here, including university attended, degree outcome, social class background, and so forth, there remains a significant disadvantage of ethnic minority groups taking the highest paid roles in these elite firms compared to White graduates. Whilst some progress has been made in entry to elite firms for ethnic-minority graduates (Moore et al., 2016: 96), and despite ethnic minorities being well represented in the sector overall, this has not reached the upper-echelons of the elite firms. It is hard to say whether ethnic minority groups are not applying (and self-excluding themselves), or not being successful in their application, to these top paying jobs. Either way, it cannot be discounted that the highest paid positions in these companies may privilege particular kinds of racialised norms and dispositions in their recruitment practices.

Alongside disparities in ethnicity, our modelling suggests a similar pattern for gender, in terms of women slightly more likely to be recruited than men, but less likely to have a higher rate of pay (4% less likely than men to have a higher starting salary). Like ethnicity, this

finding suggests that men and women are more likely to apply to particular roles which attract different salaries, or women are being excluded when applying to the top jobs. Again, either way, these gender patterns reflect deep-seated gendered inequalities in the labour market (Storvik and Schøne 2008) – with a host of factors already taken into account, including age, this 'glass ceiling' represents a significant inequality in pay for women.

Social class does not seem to have clear effects in determining entry to this elite group of financial and consultancy companies. The likelihood of entering one of these top firms does not differ across different socio-economic groups when the range of factors considered here are controlled for. In terms of those graduates taking the highest paid jobs, none of the results are significant, but the lower socio-economic groups have negative percentage change values compared with the highest socio-economic group. Without a larger sample of graduates, the results are inconclusive in terms of social class. The lack of significant social class effects on entry to these elite firms as opposed to working in other financial companies may reflect the fact that the sectors are over-represented by higher socio-economic groups in the first place (to emphasise the data is a sector-based sub-set of the entire graduate population). The sample of lower socio-economic groups may be too small to identify any significant effects. It could also be that unobservable differences between groups are missed by the proxy measure of socio-economic status used here.

An additional marker of class is school attended, and we can see from our results that on entry to these elite firms as opposed to other financial companies, students from state schools are 13% less likely than students from private schools to enter these firms (Model 3). Even after controlling for the array of factors we include here, those educated in the state sector are nearly 6 times less likely to have a higher salary upon entry to an elite firm than their privately educated counterparts (Model 5). This 'state/private' dichotomy is crude because it misses the enormous variation within both sectors – but it does provide some indication the lasting benefits of a private education, above and beyond university attended and degree outcomes. A closer nuanced look at variation within the sectors could reveal even more 'school effects', as evidenced elsewhere (Author, Author).

Stratification of credentials

An important influence on entry to a top firm, and the top echelons of them, can be attributed to the kinds of credentials held by graduates, explored here in relation to level of study and degree outcome. Our findings build upon clear evidence from past research concerning the differential outcomes of graduates who have studied particular subjects, especially in terms of earnings and occupational status (Britton et al., 2016). Whilst the Friedman and Laurison (2017) analyses of Labour Force Survey data revealed important differences in the earnings across different subject areas, it did not control for individual university attended. More generally, there is no work that has been done on the privileging of particular subjects by elite graduate recruiters. Given this consensus in the literature about the importance of subject choice in the labour market, we find little compelling evidence of graduates' degree subject affecting access to the elite firms. Across both sets of modelling, Mathematics was taken as the reference category because it has been consistently found in other research to be one of the higher paying subjects (McGettigan, 2017)[1]. On entry to the firms, those with degrees in computer science appear to have a better chance of being recruited (70% more likely to be

[1] Mathematical sciences has the third highest median salary after economics (not separated here from other social sciences) and medicine and dentistry which for obvious reasons would not be a good reference category in the context of examining recruitment into finance.

recruited, Model 3) than those with a mathematics degree. Graduates of law, business and administrative studies, and social studies also appear to offer some advantages to being recruited by an elite firm over Mathematics graduates.

When looking at the highest paid recruits to the 33 leading firms, clearer patterns begin to emerge in the apparent privileging of certain subjects over others. Those graduating in Mathematics now appear to be much more likely to have higher starting salaries upon entering an elite firm – with language graduates and biological sciences being 6% less likely than Mathematics graduates to have a higher starting salary. Whilst nearly all the percentage changes in salary are negative against Mathematics, these two subjects are the only ones which we have statistically significant results for. The apparent importance of Mathematics holds true with the exception of those in the subject areas of social studies (which includes economics) – who are the only graduates that have a clear advantage over Mathematics graduates. In Model 5, which includes everything except geographic location, graduates taking a subject in social studies are nearly 10% more likely to have a starting salary that is more than Mathematics graduates (model 5). This perhaps reflects the segmentation of the sectors included here, it could be for example that highly paid management consultants are more heavily drawn from these degrees. More likely however, is that this subject specific effect fits into the continuing presence of more traditional elite university graduates with middle-class, private school backgrounds in high-prestige roles within large banks as Moore *et al.* (2016: 76-78) have argued. At the same time, given what is known about labour market stratification and the ambiguity of knowledge, these patterns are likely to be highly dependent on the job type and specialism (Ashley and Empson 2013).

Degree type has little effect on entry to these firms; which is as might be expected given that most of those working in these firms are coming straight through on graduate schemes, hence the lower likelihood of having a postgraduate degree (taught, 0.52, or research, 0.63) and working for one of these firms compared to other finance or consultancy firms (Model 3). At the same time, it appears that getting a First at undergraduate level is especially favoured by these elite recruiters – above whether or not they went on to postgraduate study – which is an interesting finding given current debates about inequalities in access to postgraduate study (Wakeling, 2005). However, within in terms of pay differentials within these companies, having a research degree is strongly associated with higher earnings, with those holding a research degree being 10% more likely to have a higher starting salary than those who hold a First at undergraduate level (Model 6). Age is already controlled for in our modelling, and so this might not entirely be to do with experience. In the context of growing inequalities in progression to postgraduate study (Wakeling, 2005), these findings underline the importance of looking up to higher levels of study when examining processes and mechanisms of social closure. It suggests a two tiered process of recruitment of graduates into the finance sector, a point we return to in our conclusion.

There is also a thin ‘meritocratic’ element to the selection process on entry to these firms as undergraduate degree classifications have a linear relationship with likelihood of entry to these firms (for both overall entry, and for the highest-paid recruits). This might be expected, given that many of the elite recruiters openly publish ‘entry requirements’ to their UK graduate schemes which often require at least a 2:1 degree classification. In this sense, then, it is perhaps surprising that the relationship between levels of university achievement and entry to one of these leading firms is not stronger than it is.

Broadening and shifting patterns of institutional stratification

Some of the most substantial differences between graduates in their entry to these leading firms, and pay differentials within them, can be found at the level of individual institution, which hold true when holding constant the range of other factors controlled for here. However, there is also a degree of ambiguity in patterns of institutional stratification, with conventional patterns of institutional segmentation identified elsewhere (Morley and Aynsley, 2007) not entirely consistent with our findings. It has previously been assumed that the research-intensive Russell Group provides a conduit for entry to the kinds of firms we examined here, but our findings are suggestive of more complex institutional stratification within the elite firms themselves.

The institution-level coefficient values are displayed for overall entry to an elite employer (figure 1) and the probabilities of earning a higher salary upon entry (figure 2). These are derived from the fully adjusted models, with all of the individual-level variables included. University level differences across the two models suggest the arrival of newer institutions in providing access *into* these major graduate firms in the sectors but the continued dominance of elite institutions as conduits to the highest paid roles within them. There are caveats with significance and here we come up against the limits of working with a restricted sub-set of the data, something which future research could alleviate by aggregating several years of data. Nonetheless there are some notable results. Looking at entry to these leading firm overall, we can see that regardless of students' background and educational attainment, those graduating from Aston University are slightly more likely than Oxford graduates to be recruited by one of these elite firms. Whilst most of those institutions which are closest to Oxford are the conventional older research-intensive universities of the 'Russell Group', the presence of Aston underlines how the elite sub-field of higher education institutions within the UK has been partially permeable to new institutional entrants. Aston's intake consistently has well over 90 per cent of its students drawn from state schools, in 2016/17 Aston recruited 94.9% of its students from state schools the University of Oxford, in contrast, recruited only 57.7% from state schools with a large minority coming from private, fee-paying schools (HESA, 2018). Despite the multiple advantages of many students attending Oxford, some universities such as Aston have been able to compete with more established elite institutions at least on entry to these prestigious employers. The presence of a number of 'Plateglass' institutions with large numbers of students working in finance and consultancy should be viewed in the context of these institutions' histories. The Plateglass[2] universities, founded in the 1960s were early adopters of Business Schools. Bath, Lancaster, Aston, Warwick, Loughborough and City were all early founders of Business Schools who have largely sustained their position in rankings of business schools (Wilkins and Huisman, 2012).

However, within the major financial firms explored here, these newer universities do not seem to serve as conduits to the highest paid graduate roles. In the second set of models, Aston graduates have a negative coefficient value (although this is not significant). In fact, there is clear evidence of traditional elite institutions, Oxford, Imperial College, LSE, Cambridge and especially London Business School, continuing to provide the dominant pathway into the highest paid positions within these firms. Only Warwick, Bath and City

[2] The term 'plateglass' was coined by Michael Beloff to reflect the architectural design of universities that emerged in the late 1950s and 1960s, which often incorporated a modernist construction, including wide expanses of glass in steel or concrete frames.

University seem to provide a small challenge to the continuing hegemony of the older elite institutions of the 'golden triangle' over elite formation through the sectors of finance, accountancy and consultancy. This suggests, as Wakeling and Savage (2013) have argued, a distinctive hierarchy *within* the 'Russell Group' as well as the entry of 'newer' Plateglass institutions into this dominant sub-field of universities (Boliver, 2015).

One significant result which underlines an often overlooked institution in theorising the education of British elites is that graduates of London Business School (LBS), a private university located in central London, have a greater likelihood of earning a higher salary. LBS only provides postgraduate and executive education and it clearly dominates the key positions within the field of financial and management consultancy careers. Age was included in our modelling as an individual-level variable, and so this cannot be directly attributed to the earnings premium of having greater experience. However, LBS postgraduate degrees are much more expensive than those offered by public universities, and so it could be that these graduates had higher earnings in their previous jobs. It could also be that an LBS degree carries a specific earnings premium for these employers, perhaps owing to the nature of studying at this institution or historical associations between LBS and the make-up of board rooms at these elite firms.

In terms of how the field of higher education is tied into the financial sub-field of the field of power, these results suggest a more subtle hierarchy of institutions than might have been expected. The established, older elite institutions perform well on allowing students to enter these firms as opposed to other financial sector businesses, but so too do the Plateglass universities as well as London Business School. In terms of placement *within* these firms, the most highly paid graduates are slightly more likely to come from the traditional core of elite institutions with Oxford and to a lesser extent LSE appearing to have a more powerful effect here than newer institutions with the notable exception of London Business School. These findings support Davis' (2017: 243) argument that professional postgraduate business qualifications such as the MBA are increasingly important to attaining elite positions in the City of London. This is further supported by the fact that having a PhD or other research degree came with a clear pay premium within these firms, whereas within the financial field as a whole a postgraduate degree was not particularly advantageous for entering these firms. The strong effect of business schools and postgraduate degrees in elite positions within these major firms may be linked to the lower likelihood of women reaching these top-paying positions as Hall (2013: 234-235) has suggested.

Geographical patterns in recruitment again suggest dualistic patterns of recruitment between the majority of graduates and a smaller highly-paid elite *in formation*. In terms of the impact of geographic origins (students' geographic origins prior to university study), our modelling suggests graduates are equally likely to be recruited into a top firm no matter where they come from – with the exception of international students – who have a 14% greater probability of being recruited to students from London. However, when looking at those starting on the highest salaries, we again see a very different picture. Geographic origins appear to have an important impact on earnings. Whilst international students have a higher chance of accessing an elite firm, they are 21% less likely to have a higher starting salary upon entry compared to those from London. Northern Irish students are 10% less likely to have a higher starting salary, and those from the North West, West Midlands and South West also have less chance of earning more than those from London. It is difficult to say what may be driving these patterns, given the wide range of variables already controlled for. It could be that those from London have better access to internships or work experience because they are

more likely to have family/parents to stay with in London – opportunities that might not be open to those from other localities.

The region where graduates in these elite firms are working sheds further light on this. In terms of region of work, graduates entering an elite firm in these sectors are more like to do so if they come from Northern Ireland (2.6 times more likely), Scotland (1.6 times more likely), West Midlands (1.5 times more likely) and Yorkshire (1.4 times more likely) compared to London (Model 3). These results may suggest that these firms dominate the financial sector in these regions to a greater extent than is the case in London. However, these results are reversed when earnings are considered, with those entering these elite firms and working in every location included here more likely to have lower earnings than those working in London. Those in these elite firms who are working in Northern Ireland are 40% less likely than those working in London to have a higher starting salary. The same decreased likelihood of having a higher starting salary than those working London is true for every other place in the UK and is even greater for those working in Europe.

Whilst these geographic patterns likely reflect spatial inequalities in the labour market in general, and specifically the London earnings premium, it could also be reflective of the sorts of functions carried out by the recruits. The highest-paid London-based recruits likely to be working in the corporate head-quarters - carrying out more managerial, 'command' functions that reflect the dominance of London within the British economy (Robson, 1986). Whereas the lower-paid recruits dispersed across different regions of the country are likely to be based in branch offices where more technical functions are carried out. The geography of recruitment into finance underlines how the graduate labour market reflects the uneven geography of economic power and success within the UK. Distinctive patterns of graduate recruitment and initial stages of elite formation within the financial field are an inevitable result of this spatial inequality.

Conclusion: dualistic patterns of graduate recruitment and the early bifurcation of the financial elite.

Our analysis suggests a two tiered process of recruitment into the major financial firms –with what appears to be a high degree of stratification within the firms themselves. These firms certainly appear at first sight to be opening their doors to a wider spectrum of society, but a closer look at their corridors of power – those recruited with the highest starting salaries and likely to be on a path to the top of the company – are more likely to have all too familiar social, ethnic and institutional origins associated with elite class formation (Sassen, Savage).

Our analysis suggests some shifts in the hierarchies that have traditionally linked major City firms to particular universities. The strong performance of Aston University in particular also underlines how there is no intrinsic link between the rarefied social and academic elite of undergraduates entering an economics and management course at Oxford University and those starting the same course at Aston with its high proportion of state school students. In fact, accounting for student background and their educational performance and subject of study, Aston students are slightly more likely to work for these firms than students at Oxford. Rather than suggesting the democratisation of links between universities and elite employers in a commanding position in both the British and global economy, the second set of models suggest that the older elite institutions still dominate access to higher paid positions within these firms. However, these older institutions of the 'Golden Triangle' of London and

Oxbridge now sit alongside postgraduate providers of business education with LBS outperforming these more traditional universities.

Similar distinctions between an increasingly open recruitment *into* these firms and the maintained hierarchy *within* the higher-paid positions likely to lead to more senior roles, are present on ethnicity and gender too. Whilst women are just as likely as men to enter these firms, this is reversed for accessing the top-paid graduate positions and the same is true for ethnic-minority graduates. International students (who likely make up the majority of 'unknown' ethnicity students) are a notable exception to this, underlining the international nature of recruitment in the City (Beaverstock and Hall, 2012), but their greater propensity to enter does not follow through to higher earnings. Social class evidence across both models does not show the distinct patterns that might be expected which is likely explained by the overall socio-economic make-up of these sectors. However, private school students are at an advantage relative to their state-educated peers both on overall access to these firms and in terms of earnings within them (Model 2 and Model 5). The advantage of having attended a private school, which exists even after controlling for the multiple variables included in our models, is suggestive of the continued presence within the City of more predictable modes of conduct, character and manner. As Hall (2013: 232) and others (Griffiths et al., 2008: 206-207) have argued amongst elites, 'reworked' forms of traditional patterns of inequality have ensured that moves to open-up and democratise access to elite firms have at best had limited success.

The differentiated patterns of recruitment into these firms are in keeping with broader sociological findings that have argued that educational expansion has maintained patterns of inequality (Lucas, 2001; Boliver, 2016), pushing patterns and processes of selection into later educational phases. We concur with the findings of Wakeling (2005) that postgraduate study, and particularly in this case, having a PhD, seems to be strongly associated with graduates' positioning within elite companies. The distinctive patterns of graduate recruitment that we have examined here suggest the creation of a two-tiered financial elite operating within the major accountancy, consultancy and banking firms that dominate the City of London and the UK's financial sector as a whole.

Distinctions have been drawn within class fractions of a 'technical fraction' of professionals responsible in part for managing the wealth of the transnational capitalist class of owners and investors (Sklair, 2012; Carroll, 2010; Ball and Nikita, 2014). We can posit that the two patterns of recruitment seen here suggest the internal stratification of the financial fractions of the upper-middle class. The financial equivalent of local government's 'butler class' (York, 2015. In: Atkinson et al., 2017: 186) are the future wealth managers, consultants and accountants serving the super-rich training in these graduate schemes. Even at the point of recruitment from university, these graduates seem to be split into two fairly distinct strata. On the one hand, a more broadly recruited group with greater gender balance and ethnic diversity, working across the UK in lower paid roles, and from a slightly less selective and traditional group of universities. On the other, a higher paid elite of graduates from the traditional elite of London universities and Oxbridge alongside newer providers of MBA education who are more male, less ethnically mixed, more likely to attend a private school and work in London and are more likely to hold a PhD. We find little evidence for any meaningful democratisation of access to these firms. Instead we see the mutation of patterns of entry to finance which suggest slight shifts in the identity and processes of formation of the British financial elite which maintain earlier inequalities in the construction of the financial sector through new modes of selection.

Recruitment into the elite financial firms is thus dualistic, suggesting a bifurcation of occupational hierarchies and patterns of graduate recruitment. Elite formation within the financial field is thus embedded within graduates' first transition into the labour market and this perhaps represents a crucial first stage in processes of elite class formation. Our analysis has underlined the huge scope for detailed granular analysis of processes of graduate recruitment and class formation using administrative datasets of this kind. Aggregation of further cohorts and the examination of other sectors of the economy provide rich terrain for future research and means to improve and extend the analysis of the graduate labour market that we have begun here.

References

Ashley L and Empson L. (2016) Understanding social exclusion in elite professional service firms: field level dynamics and the 'professional project'. *Work, Employment and Society* 31: 211-229.

Ashley, L and Empson, L. (2012) Differentiation and discrimination: Understanding social class and social exclusion in leading law firms, *Human Relations,* 66(2), pp. 219-244

Atkinson R, Parker S and Burrows R. (2017) Elite formation, power and space in contemporary London. *Theory, Culture & Society* 34: 179-200.

Ball SJ and Nikita DP. (2014) The global middle class and school choice: A cosmopolitan sociology. *Zeitschrift für Erziehungswissenschaft* 17: 81-93.

Beaverstock JV and Hall S. (2012) Competing for talent: global mobility, immigration and the City of London's labour market. *Cambridge Journal of Regions, Economy and Society* 5: 271-288.

Binder AJ, Davis DB and Bloom N. (2016) Career Funneling: How Elite Students Learn to Define and Desire ''Prestigious''Jobs. *Sociology of Education* 89: 20-39.

Boliver V. (2011) Expansion, differentiation, and the persistence of social class inequalities in British higher education. *Higher Education* 61: 229-242.

Boliver V. (2015) Are there distinctive clusters of higher and lower status universities in the UK? *Oxford Review of Education* 41: 608-627.

Boliver V. (2016) Critically evaluating the effectively maintained inequality hypothesis. *British journal of education, society and behavioural science.* 15: 1-9.

Bourdieu P. (1984) *Distinction: A social critique of taste,* Cambridge, MA: Harvard University Press.

Bourdieu P. (1996) *The state nobility: Elite schools in the field of power,* Cambridge: Polity Press.

Britton J, Dearden L, Shephard N, et al. (2016) How English domiciled graduate earnings vary with gender, institution attended, subject and socio-economic background. *London: Institute for Fiscal Studies*.

Brown P. (2013) Education, opportunity and the prospects for social mobility. *British Journal of Sociology of Education* 34: 678-700.

Brown P, Lauder H and Ashton D. (2010) *The global auction: The broken promises of education, jobs, and incomes,* Oxford: Oxford University Press.

Carroll WK. (2010) *The making of a transnational capitalist class: Corporate power in the 21st century*, London: Zed Books Ltd.

Davis A. (2017) Sustaining corporate class consciousness across the new liquid managerial elite in Britain. *The British Journal of Sociology* 68: 234-253.

Friedman S and Laurison D. (2017) Mind the gap: financial London and the regional class pay gap. *The British Journal of Sociology* 68: 474-511.

Glassdoor. (2018) *KPMG Salaries - job title includes "graduate"*. Available at: https://www.glassdoor.co.uk/Salary/KPMG-Salaries-E2867.htm?filter.jobTitleFTS=graduate.

Griffiths D, Miles A and Savage M. (2008) The end of the English cultural elite? *The Sociological Review* 56: 187-209.

Hall S. (2013) Business Education and the (Re)production of Gendered Cultures of Work in the City of London. *Social Politics: International Studies in Gender, State & Society* 20: 222-241.

Haynes K. (2017) Accounting as gendering and gendered: A review of 25 years of critical accounting research on gender. *Critical Perspectives on Accounting* 43: 110-124.

HESA. (2018) *Widening participation: UK Performance Indicators 2016/17*. Available at: https://www.hesa.ac.uk/news/01-02-2018/widening-participation-tables.

High Fliers Research. (2014) The Graduate Market in 2014: Annual review of graduate vacancies and starting salaries at Britain's leading employers. London: High Fliers Research.

Storvik, A. and Schøne, P. (2008) In search of the glass ceiling: gender and recruitment to management in Norway's state bureaucracy, *British Journal of Sociology,* 59(4), pp. 729-755

Jeremy DJ. (1984) Anatomy of the British business elite, 1860–1980. *Business History* 26: 3-23.

KPMG. (2018) *Graduate Programmes*. Available at: https://www.kpmgcareers.co.uk/graduates/graduate-programmes.

Kumra S. (2015) Back to the future: a gendered analysis of "getting on" in the professional services firm. In: Broadbridge AF, Sandra (ed) *Handbook of Gendered Careers in Management.* Cheltenham: Edward Elgar Publishing, 374-389.
Lucas SR. (2001) Effectively Maintained Inequality: Education Transitions, Track Mobility, and Social Background Effects. *American journal of Sociology* 106: 1642-1690.
McDowell L. (1997) The new service class: housing, consumption, and lifestyle among London bankers in the 1990s. *Environment and Planning A* 29: 2061-2078.
McDowell L. (2010) Capital culture revisited: Sex, testosterone and the city. *International Journal of Urban and Regional Research* 34: 652-658.
McGettigan A. (2017) Lessons from LEO: time to think differently about subject funding. In: Morris D (ed) *WonkHE.* London: Wonkhe Ltd.
Moore J, Higham L, Mountford-Zimdars A, et al. (2016) Socio-Economic Diversity in Life Sciences and Investment Banking. In: Social Mobility Commission (ed). London: Social Mobility Commission.
Morley L. (2007) The X factor: employability, elitism and equity in graduate recruitment. *Twenty-first century society* 2: 191-207.
Morley L and Aynsley S. (2007) Employers, quality and standards in higher education: shared values and vocabularies or elitism and inequalities? *Higher Education Quarterly* 61: 229-249.
Office for National Statistics. (2009) UK Standard Industrial Classification of Economic Activities 2007 (SIC 2007). In: Prosser L (ed). Basingstoke: Palgrave Macmillan.
Office for National Statistics. (2010) Standard Occupational Classification 2010: Structure and descriptions of unit groups. Basingstoke: Palgrave Macmillan.
Open University. (2018) *Open University Business School Reputation*. Available at: http://business-school.open.ac.uk/reputation.
Reeves A, Friedman S, Rahal C, et al. (2017) The decline and persistence of the old boy: Private schools and elite recruitment 1897 to 2016. *American sociological review* 82: 1139-1166.
Robson B. (1986) Coming full circle: London versus the rest 1890–1980. In: Gordon G (ed) *Regional Cities in the UK.* London: Harper Row, 217-231.
Scott J. (2003) Transformations in the British economic elite. *Comparative Sociology* 2: 155-173.
Sklair L. (2012) Transnational Capitalist Class. In: Ritzer G (ed) *The Wiley-Blackwell Encyclopedia of Globalization.* Oxford: John Wiley & Sons, 1-2.
SMCPC. (2014) Elitist Britain. London: SMCPC.
Stanworth P and Giddens A. (1974) An economic elite: company chairmen. In: Stanworth P and Giddens A (eds) *Elites and power in British society.* Cambridge, UK: Cambridge University Press, 81-101.
Sutton Trust. (2012) The Educational Backgrounds of the Nation's Leading People. London: The Sutton Trust.
Sutton Trust. (2014) Pathways to Banking: Improving access for students from non-privileged backgrounds. London: The Sutton Trust.
Thompson P. (1997) The Pyrrhic Victory of Gentlemanly Capitalism: The Financial Elite of the City of London, I945-90, Part 1. *Journal of Contemporary History* 32: 283-304.
Vault. (2018) *Vault Company Rankings*. Available at: http://www.vault.com/company-rankings/.
Wacquant L. (1996) Foreword. In: Bourdieu P (ed) *The state nobility: Elite schools in the field of power.* Cambridge: Polity Press, ix-xxii.
Wakeling P. (2005) La noblesse d'etat anglaise? Social class and progression to postgraduate study. *British Journal of Sociology of Education* 26: 505-522.
Whitley R. (1974) The city and industry: the directors of large companies, their characteristics and connections. In: Stanworth P and Giddens A (eds) *Elites and power in British society.* Cambridge: Cambridge University Press, 65-80.
Wilkins S and Huisman J. (2012) UK business school rankings over the last 30 years (1980–2010): Trends and explanations. *Higher Education* 63: 367-382.

Table 1: Descriptive statistics for sub-samples and wider graduate population

	Graduate cohort (2013/2014)		***Graduates employed in accountancy, finance and consultancy sectors***		***Graduates employed at elite employer within accountancy, finance and consultancy sector***	
	N	%	N	%	N	%
Ethnicity						
White British	322520	**76.0**	7885	**67.1**	2130	**65.4**
Black Caribbean	4935	**1.2**	75	**.7**	20	**.6**
Black African	14215	**3.4**	355	**3.0**	100	**3.0**
Other Black	895	**.2**	15	**.1**	5	**.2**
Indian	13455	**3.2**	795	**6.8**	265	**8.1**
Pakistani	8845	**2.1**	280	**2.4**	85	**2.6**
Bangladeshi	3305	**.8**	100	**.9**	25	**.8**
Chinese	3495	**.8**	210	**1.8**	80	**2.5**
Other Asian	5795	**1.4**	180	**1.5**	50	**1.5**
Mixed	15815	**3.7**	395	**3.4**	95	**3.0**
Other/not recorded	31090	**7.3**	1460	**12.4**	400	**12.4**
Total	424375	**100.0**	11750	**100.0**	3255	**100.0**
Social class						
NS-SEC 1	56725	**13.4**	2435	**20.7**	740	**22.8**
NS-Sec 2	70945	**16.7**	2145	**18.3**	615	**18.9**
NS-Sec 3	32445	**7.6**	985	**8.4**	305	**9.4**
NS-Sec 4	17325	**4.1**	470	**4.0**	130	**4.1**
NS-Sec 5	11500	**2.7**	245	**2.1**	80	**2.5**
NS-Sec 6	32120	**7.6**	615	**5.2**	180	**5.5**
NS-Sec 7	15060	**3.5**	285	**2.4**	65	**2.1**
NS-Sec 8	985	**.2**	10	**.1**	0	**.0**
NS-Sec Unclassified	82625	**19.5**	2025	**17.2**	555	**17.0**
NS-Sec Unknown	104640	**24.7**	2540	**21.6**	580	**17.9**
Total	424375	**100.0**	11750	**100.0**	3255	**100.0**
Gender						
Male	178270	**42.0**	7335	**62.4**	2015	**61.8**
Female	246065	**58.0**	4415	**37.6**	1240	**38.2**
Unknown	40	**.0**	0	**.0**	0	**0.0**
Total	424375	**100.0**	11750	**100.0**	3255	**100.0**
Schooling sector						
Private educated	25580	**6.0**	1805	**15.4**	600	**18.5**
State educated	262960	**62.0**	6520	**55.5**	1840	**56.5**
Unknown	135835	**32.0**	3425	**29.1**	815	**25.0**
Total	424375	**100.0**	11750	**100.0**	3255	**100.0**

Geographic origins						
North-East	15120	**3.6**	230	**2.0**	70	**2.2**
North-West	44260	**10.4**	905	**7.7**	265	**8.2**
Yorkshire and the Humber	28830	**6.8**	565	**4.8**	160	**4.9**
East Midlands	26570	**6.3**	555	**4.7**	175	**5.3**
West Midlands	34075	**8.0**	915	**7.8**	285	**8.8**
East of England	36090	**8.5**	1030	**8.8**	255	**7.8**
London	61955	**14.6**	2070	**17.6**	570	**17.5**
South-East	56165	**13.2**	1830	**15.6**	465	**14.3**
South-West	31125	**7.3**	715	**6.1**	175	**5.4**
Channell Islands	595	**.1**	55	**.5**	20	**.6**
Isle of Man	375	**.1**	35	**.3**	10	**.2**
Northern Ireland	12865	**3.0**	445	**3.8**	155	**4.8**
Scotland	29780	**7.0**	695	**5.9**	180	**5.5**
Wales	18455	**4.3**	300	**2.6**	80	**2.5**
Unknown	28115	**6.6**	1410	**12.0**	390	**12.0**
Total	424375	**100.0**	11750	**100.0**	3255	**100.0**

Note: raw values have been rounded to the nearest 5, with percentages re-calculated to reflect this rounding.

Table 2: Odds ratios for overall entry to elite firms (two-level random effects models)

	Model 1	**Model 2**	**Model 3**
Predictors	*Odds Ratios*	*Odds Ratios*	*Odds Ratios*
(Intercept)	0.82	1.05	0.97
Ethnicity (reference=White)			
Bangladeshi	1.29	1.34	1.34
Indian	1.49***	1.51***	1.52***
Pakistani	1.59***	1.62***	1.63***
Other Asian background	1.1	1.14	1.21
Chinese	1.53***	1.52***	1.7***
African	1.48***	1.6***	1.64***
Caribbean	1.55	1.74**	1.72**
Other Black background	1.48	1.59	1.74
Other (including mixed)	0.94	0.92	0.98
Ethnicity not known (incl. Int'l Students)	1.15*	1.07	0.6**
Gender (ref=male)			
Female	1.09**	1.1**	1.09**
Other	0	0	0
National Statistics Socio-economic classification (Ref = 1 Higher managerial, administrative and professional occupations)			
2. Lower managerial and professional	0.97	0.96	0.95
3. Intermediate	1.05	1.07	1.05
4. Small employers/own account workers	0.91	0.94	0.92
5. Lower supervisory or technical occupations	1.26*	1.32*	1.26
6. Routine	0.85	0.85	0.84
7. Semi-routine	1.02	1.06	1.03
8. Never worked and long-term unemployed	0.28	0.27	0.25
9. Not classified	0.98	1	0.98
10. Unknown	0.78***	0.91	0.92
Age (years)	0.97***	0.97***	0.97***
School type (ref=private)			
State school		0.9*	0.87**
Unclassified school type		1.04	0.97

Degree type and class (ref=Undergrad degree with First)			
Undergrad - 2.1		0.69***	0.69***
Undergrad - 2.2		0.34***	0.33***
Undergrad - 3rd		0.27***	0.26***
Undergrad - Unclassified		0.67	0.68
Other undergrad degree		0.48***	0.47***
Postgraduate (research)		0.63**	0.63**
Postgraduate (taught)		0.5***	0.52***
Subject studied (ref=Maths)			
(1) Medicine/dentistry		0.96	0.91
(2) Subjects allied to medicine		1.27	1.34
(3) Biological sciences		0.95	0.97
(4) Veterinary science		0	0
(5) Agriculture related		0.14*	0.15*
(6) Physical sciences		0.88	0.9
(8) Computer science		1.64***	1.7***
(9) Engineering and technology		1.2	1.22
(A) Architecture, building and planning		1.21	1.2
(B) Social studies		1.21**	1.25***
(C) Law		1.46***	1.47***
(D) Business and administrative studies		1.28***	1.29***
(E) Mass communications and documentation		0.4***	0.42***
(F) Languages		0.95	0.98
(G) Historical and philosophical studies		0.92	0.96
(H) Creative arts/design		0.52**	0.56**
(I) Education		1.2	1.22
(J) Combined		0.81	0.88
Region of origin (ref=London)			
South East			0.95
East of England			0.91
South West			0.92
West Midlands			0.93
East Midlands			0.97
Yorkshire and The Humber			1.07
North West			1.39***
North East			1.17

Scotland			0.89
Wales			1.28
Northern Ireland			1.13
Channel Islands/Isle of Man			1.2
International student or no data			2.01***
Work location (ref=London)			
South East			0.7***
East of England			0.63***
South West			0.83
West Midlands			1.51***
East Midlands			1.09
Yorkshire and Humber			1.36**
North West			0.83
North East			1.33
England (reg unknown)			1.53**
Scotland			1.59***
Wales			1.12
Northern Ireland			2.55***
Other UK			1.16
Northern Europe			0.58**
Southern Europe			1.17
Eastern Europe			1.25
Western Europe			0.87
North and South America			0.73
Africa			0.53
Asia			0.46***
Australia and New Zealand			0.17*
Missing or not known			0.38*
Within university variance	3.29	3.29	3.29
Between university variance	0.42	0.37	0.36
Intra-class coefficient	0.11	0.10	0.10
Observations	11752	11752	11752
Marginal R^2 / Conditional R^2	0.027 / 0.138	0.062 / 0.156	0.091 / 0.180

Note: *p<0.1; **p<0.05; ***p<0.01

Table 3: Exponentiated coefficients shown as percentages for earnings within the elite firms (two-level random effects models)

Predictors	***Model 4***	***Model 5***	***Model 6***
Intercept (exponentiated)	13494.99	14472.42	19148.89
Ethnicity (reference = white)			
Bangladeshi	-3.92	-1.98	-10.42**
Indian	3.05	4.08	0.00
Pakistani	-4.88	-3.92	-3.92
Other Asian background	3.05	4.08	-3.92
Chinese	-8.61**	-8.61**	-7.69**
African	6.18	7.25*	-1.98
Caribbean	-13.06*	-10.42	-13.92**
Other Black background	2.02	2.02	-12.19
Other (including mixed)	6.18*	6.18*	3.05
Ethnicity not known (incl. Int'l Students)	-11.31***	-10.42***	23.37***
Female	-6.76***	-5.82	-3.92***
2. Lower managerial and professional	0.00	0.00	0.00
3. Intermediate	-2.96	-1.98	-1.98
4. Small employers/own account workers	-1.00	-1.00	1.01
5. Lower supervisory or technical occupations	-6.76*	-4.88	-2.96
6. Routine	-1.98	0.00	3.05
7. Semi-routine	-1.98	-1.00	-2.96
8. Never worked and long-term unemployed	256.09	278.10	127.05
9. Not classified	-3.92**	-2.96	-2.96
10. Unknown	10.52***	12.75***	9.42***
Age (years)	3.05***	3.05***	3.05***
State school		-5.82***	-1.98
Unclassified school type		-7.69***	-4.88**
Undergrad - 2.1		-4.88***	-2.96**
Undergrad - 2.2		-18.13***	-12.19***
Undergrad - 3rd		-13.93**	-12.19**
Undergrad - Unclassified		4.08	2.02
Other undergrad degree		-1.98	0.00
Postgraduate (research)		10.52	15.02**
Postgraduate (taught)		-2.96	0.00

(1) Medicine/dentistry		-24.42	-22.89*
(2) Subjects allied to medicine		-11.31*	-6.76
(3) Biological sciences		-5.82*	-5.82*
(5) Agriculture related		-3.92	-4.88
(6) Physical sciences		-3.92	-3.92
(8) Computer science		6.18	5.13
(9) Engineering and technology		7.25*	2.02
(A) Architecture, building and planning		-3.92	-8.61
(B) Social studies		9.41***	3.05*
(C) Law		-4.88	-4.88
(D) Business and administrative studies		0.00	-1.00
(E) Mass communications and documentation		3.05	4.08
(F) Languages		-5.82	-5.82**
(G) Historical and philosophical studies		6.18	1.01
(H) Creative arts/design		-10.42	-10.42
(I) Education		1.01	-8.61
(J) Combined		10.52	3.05
South East			-4.88
East of England			-2.96
South West			-6.76**
West Midlands			-5.82**
East Midlands			-2.96
Yorkshire and The Humber			-1.98
North West			-6.76**
North East			-2.96
Scotland			-1.00
Wales			-3.92
Northern Ireland			-10.42**
Channel Islands/Isle of Man			-12.19
International student or no data			-21.34***
South East			-21.34***
East of England			-25.17***
South West			-22.12***
West Midlands			-29.53***
East Midlands			-28.11***
Yorkshire and Humber			-30.93***

North West			-25.17***
North East			-38.12***
England (reg unknown)			-12.19***
Scotland			-29.53***
Wales			-29.53***
Northern Ireland			-40.55***
Other UK			-9.52
Northern Europe			-46.21***
Southern Europe			-57.26***
Eastern Europe			-72.19***
Western Europe			-6.76***
North and South America			-34.29***
Africa			-16.47
Asia			-46.74***
Missing or not known			-25.92*
Within-university variance	0.12	0.12	0.08
Between-university variance	0.03	0.02	0.01
Intraclass correlation coefficient	0.19	0.17	0.09
Observations	3255	3255	3255
Marginal R^2 / Conditional R^2	0.125 / 0.294	0.158 / 0.300	0.463 / 0.510